# fibonacci

# Create a new project called Recursion. Create two new classes called Recursion and Tester.

**Recursion Method 1. Fibonacci problem**

**public static void recFib(int n)**

The Fibonacci number series is defined as follows:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Position | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | etc. |
| Fib number | 0 | 1 | 1 | 2 | 3 | 5 | 8 | 13 | 21 | etc. |

Positions 0 & 1 are definition values. For positions greater than 1, the corresponding Fibonacci value of position N = Fib (N-1) + Fib (N-2). Write a recursive method, called recFib, that takes in a single integer (x >= 0) and returns the appropriate Fibonacci number of the Fibonacci number series.

**Recursion Method 2. Recursive Multiplication Problem**

**public static int multiply(int m, int n)**

Write a method, called multiply, that solves a multiplication problem recursively.

**Tester Method 1. Main Method**

Using your methods, sample run the following output values inside of your main method:

Recursive Fibonacci:

0

3

11

Recursive multiplication:

0 \* 4

3 \* 1

7 \* 8

5 \* 0

45 \* 11